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August 18, 2014

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114

Dear Ms. Dortch:

T-Mobile USA, Inc. ("T-Mobile") supports the points raised by Verizon in its ex parte letter of July 25, 2014, with respect to recent claims made by the FindMe911 Coalition regarding wireless E911 location accuracy performance in the District of Columbia.[1] The information the coalition presents says very little about the availability of accurate E911 location estimates during an emergency call, and far more about FindMe911's desire to drum up controversy where there is none to promote the business interests of TruePosition, which funds FindMe911.[2]

FindMe911 continues to push sensationalist headlines rather than facts as it tries to manufacture a crisis that simply does not exist. Its latest effort calls out the availability of Phase II location information to the District of Columbia Office of United Communications ("DCOUC")—information FindMe911 obtained not from DCOUC but via the Commission.[3] FindMe911 purports that the call data indicates that Phase II location estimates were available to DCOUC for only 3.2% of T-Mobile 911 calls. This is simply not the case. Based on an analysis

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1 Letter of Nneka Ezenwa Chiazor, Verizon, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (July 25, 2014) ("Verizon Ex Parte").

2 FindMe911, *About*, http://findme911.org/about/ ("Initial funding for the coalition was provided by True Position, a technology provider, whose technology currently works indoors.").

3 FindMe911, *FCC Data: 9 out of 10 Wireless 9-1-1 Calls in D.C. Lack Accurate Caller Location Information* (July 10, 2014), http://findme911.org/news/fcc-data-9-out-of-10-wireless-9-1-1-calls-in-d-c-lack-accurate-caller-location-information/.

of 911 call data from January to June 2014, T-Mobile made available Phase II location estimates for 89.5% of 911 calls delivered to DCOUC lasting more than 30 seconds. It is a well understood feature of the standard architecture for wireless E911, including the ALI interface, that PSAPs must request or "re-bid" for Phase 2 location after the 911 call is set-up—there is no provision for wireless carriers to "push" Phase 2 locations to the ALI database or PSAP. T-Mobile's data indicates that DCOUC requested updated location information from T-Mobile—or performed a "re-bid"—in only 3.3% of calls, and T-Mobile is not aware of any concerns expressed by DCOUC that the current process is deficient.

Longstanding guidelines and best practices state that "[t]he [PSAP] should rebid all wireless calls when the wireless caller is not able to provide a location."[4] But there could be several reasons why a PSAP does not perform a rebid. In some cases, it may simply be that the PSAP has made a practice of eliciting location information from callers at the very beginning of a 911 call and does not need to rebid. In other cases, PSAPs may have a policy against rebidding for real or perceived technical reasons which, in some cases, might make it appear that Phase II data is not available. For example, in another attempt at scaremongering, in 2013, FindMe911 piggybacked on erroneous claims by CalNENA that five California PSAPs had experienced a significant degradation in the availability of Phase II location estimates.[5] When carriers investigated, as with DCOUC, they discovered that Phase II location information was made available to those California PSAPs an overwhelming majority of the time but the PSAPs were not requesting it via a rebid.[6] In fact, further investigation revealed California had a policy of not rebidding due to a technical issue that had been resolved several years ago. It is clear that those PSAPs that have a policy of automatically rebidding for updated location information report receiving Phase II information at a much higher rate than CalNENA or DCOUC.[7]

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4 APCO Project LOCATE, *Wireless 9-1-1 Deployment and Management Effective Practices Guide*, Effective Practice 380743 (2007), *available at* https://dps.mn.gov/divisions/ecn/programs/911/Documents/APCO_LOCATE_Effective_Practices.pdf.

5 Letter from Danita L. Crombach, CalNENA, to Commissioner Mignon Clyburn, FCC, PS Docket No. 07-114 (Aug. 12, 2013); FindMe911, *Press Release: Significant Decline in Wireless 9-1-1 Location Delivery in Major California Cities* (Aug. 13, 2013), http://findme911.org/news/press-release-significant-decline-in-wireless-9-1-1-location-delivery-in-major-california-cities/.

6 *See* Letter from John Nakahata, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (Sept. 5, 2013); Letter from Mike Tan, AT&T, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (Sept. 9, 2013); Letter from Nneka Ezenwa Chiazor, Verizon, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (Sept. 11, 2013).

7 Letter from Marlys R. Davis, E911 Program Manager, King County, WA, to Marlene H. Dortch, Secretary, FCC, at 3-4, PS Docket No. 07-114 (filed Sept. 25, 2014); (showing higher Phase II yields than CalNENA, attributed to a policy of automatically rebidding for location information after a set interval); Letter from Stan Heffernan, COO, Greater Harris County Emergency Network, to David Siehl, Public Safety and Homeland Security Bureau,

Regardless of an individual PSAP's reasons for not requesting or re-bidding for updated location information, the FCC Office of Engineering and Technology Bulletin No. 71 specifies that more accurate location information is made available after initial call delivery.[8] It is incumbent on individual PSAPs to determine how best to ensure receipt of that information, but if they want an updated location estimate, they must rebid for it.

FindMe911 paints a misleading picture in an attempt to demonstrate a failure by carriers to make available Phase II location estimates to DCUOC, but as T-Mobile and Verizon have shown, it is far more likely that other issues are at play. These issues may reflect DCOUC's policy regarding rebidding, technological issues with the PSAP's CPE,[9] or the PSAP's practice of soliciting a location from the 911 caller at the beginning of each call. Furthermore, because FindMe911 has presented the DCOUC information without any context—context it does not have, as it did not reach out to DCOUC for the information but simply requested it from the Commission—it is impossible to know from their press release exactly why DCOUC's data seems to show such a low percentage of Phase II location estimates. In this respect, FindMe911's efforts to make hay with bare data, devoid of any context, is disturbing, and should not be countenanced.

Even more interesting facts emerge from the 911 call data T-Mobile analyzed for Washington, DC, especially given the relationship between FindMe911 and TruePosition, the primary vendor of Uplink Time Difference of Arrival ("U-TDOA") location technology. For a large portion of the calls for which T-Mobile obtained a U-TDOA location estimate, that estimate was not available at the time of the initial location bid (which on average was 4.8 seconds after the start of the call). In addition, the average uncertainty (determined at 90% confidence) for U-TDOA location fixes was over 267 meters. This compares extremely unfavorably to GPS/A-GPS, which for T-Mobile DCOUC calls had an average uncertainty (at 90% confidence) of under 25 meters. Thus, despite TruePosition's accuracy claims, its performance in D.C. in the field is disappointing.[10]

FCC, at 1 (Sept. 16, 2013), *available at* http://transition.fcc.gov/bureaus/pshs/911/Phase 2/TX/Greater Harris Co TX FCC WPH2 Letter 091613.pdf (same).

[8] Federal Communications Commission, Office of Engineering and Technology, Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems, OET Bulletin No. 71, at 4 (Apr. 12, 2000).

[9] T-Mobile understands that DCOUC's rebidding policy may be in part influenced by problems with their equipment where a verbal location provided by a caller is wiped by the CAD system when a rebid is performed. *See* Verizon Ex Parte at 3 ("[DCOUC] does not routinely employ the standard retrieval process because that process has often created issues with presentation of location data to the call takers at the OUC's premises").

[10] TruePosition's accuracy claims remain unproven, as it withdrew from the only independently administered test of indoor location accuracy. *See* CSRIC III, Working Group 3, E9-1-1 Location Accuracy, *Indoor Location Test Bed Report*, at 55 (Mar. 14, 2013), *available at* http://transition.fcc.gov/bureaus/pshs/advisory/csric3/CSRIC_III_WG3_Report_March_2013_ILTestBedReport.pdf ("CSRIC III WG3 Indoor Test Bed Report"). To date, the only

Moreover, FindMe911's claims assume that if DCOUC received highly accurate E911 information it could reliably locate the caller. Recent comments filed by Intrado in this docket call that assumption into question. In its study of reverse-geocoding (*i.e.*, translating latitude and longitude coordinates into an actual street address), Intrado found that in urban areas, using typical PSAP mapping databases, actual street name and house matched a reverse geocoded location only 21% of the time, with a different house on the same street being identified 65% of the time and both an incorrect house and street name for another 14% of calls.[11]

Unfortunately, these instances of erroneous and deceptive claims made by FindMe911 are becoming the norm, not the exception. In fact, the egregious claims of the coalition have even elicited negative feedback from some very well respected public safety organizations. In a recent editorial, *Dispatch Magazine* disputed FindMe911's claim that there was a 911 crisis in Washington, DC, calling the coalition exactly what it is, "a corporately-sponsored special interest group" urging the FCC to pass regulations that would benefit its corporate founders—namely, TruePosition.[12] APCO International, the largest organization representing public safety communications personnel (including many members who work at PSAPs), recently stated that "many of the claims by FindMe911…are simply wrong and misleading."[13]

T-Mobile supports and is implementing continued improvements in its E911 location capabilities. For its Voice-over-LTE service—which is already being provided in D.C.—T-Mobile will be implementing two new location improvements, the use of GLONASS satellites in addition to GPS satellites and deployment of Observed Time Difference of Arrival ("OTDOA"). These efforts, and those of other carriers as well as of key public safety groups like APCO and NENA, which have created best practices for PSAPs, are undermined by the repeated efforts of FindMe911 to publicize self-serving claims that are, at best, wrong, and at worst deliberately misleading. These sensationalist activities do a disservice to the entire community.

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testing TruePosition has undertaken has been its own testing, in an environment that is not comparable to the CSRIC indoor test bed. *See* Comments of T-Mobile USA, Inc., PS Docket No. 07-114, at 28-29 (Sept. 25, 2013). And even that testing does not show that TruePosition is capable of meeting the commission's proposed indoor benchmarks in the proposed timeframe. *See* Reply Comments of T-Mobile USA, Inc. PS Docket No. 07-114, at 21-22 (citing attached Declaration of John F. Pottle, Ryan N. Jensen, Daniel H. Wilson, ¶ 18).

[11] Comments of Intrado, PS Docket No. 07-114, at 7 (filed May 12, 2014).

[12] Gary Allen, *Editorial: Despite Claim, DC Is Not a City in Crisis*, DISPATCH MAGAZINE ON-LINE (July 11, 2014), http://www.911dispatch.com/2014/07/11/editorial-despite-claim-dc-is-not-a-city-in-crisis/

[13] APCO International, Member Alert, *The Need to Improve Wireless 9-1-1 Location Accuracy* (July 30, 2014), *available at* http://www.magnetmail.net/actions/email_web_version.cfm?recipient_id=598602817&message_id=5619298&user_id=APCO&group_id=1000961.

Please do not hesitate to call me if you have questions.

Sincerely,

/s/ Steve B. Sharkey

Steve B. Sharkey
Chief Engineering and Technology Policy,
Federal Regulatory